

SECRET

Approved For Release 2006/02/07 : CIA-RDP78B04770A001800020036-3

CONTRACT INSPECTION REPORT

CONTRACT NO.

TASK NO.

TO:

ENGINEERING SECTION/CB/PD/OL

DATE

29 August 1964

INSPECTION REPORT NO. (If final, so state)

2

ESTIMATED COMPLETION DATE

19 June 1966

NAME OF CONTRACTOR

NGA review(s)
completed.

TYPE OF COMMODITY

P.I. Performance

THE CONTRACTOR IS ON SCHEDULE



YES

☐ NOTHE CONTRACTOR WILL PROBABLY REMAIN WITHIN ALLOCATED FUNDS ☒ YES ☐ NO IF ANSWER IS "NO" ADVISE RECOMMENDATION AND/OR ACTION OF SPONSORING OFFICE, ON REVERSE HEREOF. IF KNOWN, INDICATE MAGNITUDE OF ADDITIONAL FUNDS INVOLVED.

PER CENT OF WORK COMPLETED 20% See reverse

HAS AN INTERIM REPORT, FINAL REPORT, PROTOTYPE, OR OTHER END ITEM BEEN RECEIVED FROM THE CONTRACTOR DURING THE PERIOD? ☐ YES ☒ NO (If yes, give details on reverse side.)HAS GOVERNMENT-OWNED PROPERTY BEEN DELIVERED TO CONTRACTOR DURING THIS PERIOD? ☐ YES ☒ NO (If yes, indicate items, quantity, and cost on reverse side.)

OVERALL PERFORMANCE OF CONTRACTOR

1. ☐ OUTSTANDING 3. ☐ ABOVE AVERAGE 5. ☐ BELOW AVERAGE 7. ☐ UNSATISFACTORY
2. ☒ EXCELLENT 4. ☐ AVERAGE 6. ☐ BARELY ADEQUATE

IF OVERALL PERFORMANCE OF CONTRACTOR IS UNSATISFACTORY OR BARELY ADEQUATE, INDICATE REASONS ON REVERSE SIDE.

RECOMMENDED ACTION



CONTINUE AS PROGRAMMED

WITHHOLD PAYMENT PENDING
SATISFACTORY PERFORMANCE

TERMINATE



OTHER (Specify)

IF TERMINATION IS RECOMMENDED OR IF THIS IS A FINAL REPORT ATTACH COMMENTS IN NARRATIVE FORM ON CONTRACTOR'S PERFORMANCE AND CERTIFY THAT ALL DELIVERABLE ITEMS UNDER THE CONTRACT HAVE BEEN RECEIVED. THESE INCLUDE, WHERE APPLICABLE, THE FOLLOWING:

ITEM	REC'D	DOES NOT APPLY	ITEM	REC'D	DOES NOT APPLY
PROTOTYPES			MANUALS		
DRAWINGS AND SPECIFICATIONS			FINAL REPORT		
PRODUCTION AND/OR OTHER END ITEMS			SPECIAL TOOLING		
			OTHER GOVERNMENT PROPERTY		

DATE OF LAST CONTACT WITH CONTRACTOR

August 3-6, 1964

SIGNATURE

INSPECT

FORM 186-6-64

PREVIOUS EDITION

Approved For Release 2006/02/07 : CIA-RDP78B04770A001800020036-3

(When Filled In)

Excluded from automatic
downgrading and
declassification

(12-36)

As stated in Memorandum for the Record 153/64 (18 August), the larger two-year study has been reoriented; and, because of a pressing need for the information it can provide, a shorter-term study is currently underway. Deadline goal is the end of October.

Per cent of work completed, therefore, refers to the more immediate study. However, with its completion, the shorter study will have contributed to about 10-15% of the work for the two-year study and will substitute for much of the preliminary work planned for the latter effort.

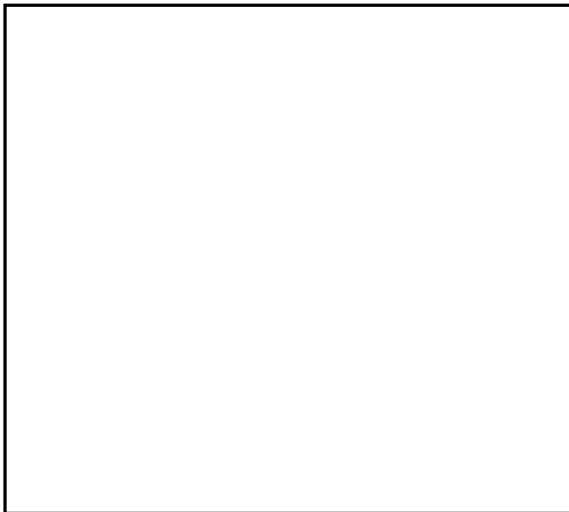
NEWSLETTER NO. 14
RESEARCH ON PHOTOINTERPRETER PERFORMANCE

31 May 1966

Prepared by

25X1

25X1



NEWSLETTER NO. 14

RESEARCH ON PHOTOINTERPRETER PERFORMANCE

MENSURATION STUDY

All measurements have been made by each of the participating subjects. Twenty-five mensuration GEMS were made as initially planned. The GEM with lowest contrast and poorest resolution was considered to be too poor in quality for mensuration. After making twenty GEMS, the master glass plate was accidentally broken and the remaining five GEMS were made from a spare glass plate. However, since (1) these five are spread throughout the experimental matrix and (2) mensuration of these GEMS also require mensuration of the spare glass plate for ground truth data, it was decided not to measure the five GEMS made from the spare glass plate.

All X and Y mensuration errors (the mean error of each of three measurements made of each point in each GEM by each subject) have been computed and AN has started an analysis of the collected data, which consists of approximately 7000 X and 7000 Y error values obtained from approximately 21,000 individual measurements.

25X1

On 24 May, DNB, AN, [] and FS briefed CM and JH on the progress of this effort.

P.I. RESPONSE STUDY

All the data for this study has been collected. The resulting sketches produced by the subjects were reviewed by two intelligence analysts at a meeting attended by the analysts, BJ, JH, PS, DNB, AN and FS, on 25 May 1966. After the analysts are supplied with copies of the sketches and other collateral information, they will begin assessment of the P.I. Responses.

REPORTING

25X1

[] and FS have begun preparation of some of the material for the final report.

After initial analysis of the corrected data of both the mensuration and P.I. response studies the participating subjects will be briefed.

Present plans are to complete data analysis by early July and begin report writing then and to submit the final report and briefing during September.

FS

99711-4
25 FEB 1966

[Handwritten signature]

[Handwritten signature]

NEWSLETTER NO. 13
RESEARCH ON PHOTOINTERPRETER PERFORMANCE

22 February 1966

Prepared by

[Redacted box]

25X1

TO:

[Redacted box]

NEWSLETTER NO. 13
RESEARCH ON PHOTOINTERPRETER PERFORMANCE

P.I. RESPONSE STUDY

All the GEMS for this study have been made. During the week of 14-18 February DNB, AH and FS conducted a pilot test using GEMS with four resolution levels, three scenes and four photointerpreters specializing in missile targets. As a result of this pre-testing effort, it was decided to ask the subjects to sketch those missiles and missile related targets which were observed in the stereo pairs. Each object, or part of an object, which is observed and sketched is given a value of the probability of ground truth. This will enhance the assessment of the sketches, the quantizing of the responses and will yield useful information. Several sketches obtained in this fashion were reviewed by three intelligence analysts and it was concluded that the sketching-approach seemed to be a good one and that the analysts and experimenters would be able to evaluate such sketches to determine P.I. response as a function of ground resolution.

The pre-testing revealed the time required by P.I.'s at each GEM resolution level to perform the sketching task. DNB and AH are presently planning an experimental design giving due consideration to P.I. time required for this study. It is tentatively planned to begin testing on 7 March.

MENSURATION STUDY

About 70% of the mensuration GEMS have been made and approximately 30% of the mensuration is completed. At present the rate of mensuration is one GEM per week. The computer program for calculating mensuration errors was completed on 18 February and computer print-outs will be sent to DNB and AH for analysis as mensuration proceeds.

* * * * *

It was concluded at a meeting attended by JH, PS, FF, DNB, AH, FS, that these studies cannot be completed by mid-June. Instead, it was estimated that this research will be completed in September or October.

25X1

NEWSLETTER NO. 12
RESEARCH ON PHOTOINTERPRETER PERFORMANCE

25 January 1966

Prepared

25X1

To:

NEWSLETTER NO. 12

RESEARCH ON PHOTOINTERPRETER PERFORMANCE

P.I. RESPONSE STUDY

The production of GEMS for this study is progressing well. GEMS with the four resolution levels to be used for performance measures will be completed by the end of January; the GEMS with the three resolution levels for judgment measures will be completed by 18 February. DNB and AH have started designing questions on each frame and pre-testing will begin when the first GEMS are available.

* The progress of this study was reviewed on 18 January at a meeting attended by DNB, AH, PS and FS at DNB's shop.

On 17 January, DNB, AH, PS and FS visited a field site to observe directly the target types used in this study. The education received and the observations made will be very useful in preparing and administering the performance tests.

MENSURATION STUDY

25X1 DNB and AH visited the Center during the week of 10 January and finalized plans for the data reduction of the mensurations for this study. [] who has been administering the mensuration tasks reports that, as of 21 January, 5 mensuration GEMS have been measured by each of the six subjects which represents approximately 20% of the mensuration effort, which is progressing well, in view of the continuous demands made of the subjects by operational programs. By mid-March all the mensuration GEMS will have been made.

As GEMS are completed they are sent to [] for mensuration; 25X1 likewise, as mensuration data are reduced by the computer group they are sent to DNB and AH for analysis.

[] 25X1

* Even if all goes as planned, it is unlikely that the pre-testing will get under way before 1 March. We'll have to monitor this program closely from that point on to see what's going on.

ILLEGIB

Approved For Release 2006/02/07 : CIA-RDP78B04770A001800020036-3

997114

NEWSLETTER NO. 11
RESEARCH ON PHOTOINTERPRETER PERFORMANCE

5 DECEMBER 1965

PREPARED

25X1

25X1

TO:

NEWSLETTER NO. 11

RESEARCH ON PHOTOINTERPRETER PERFORMANCE

P.I. RESPONSE STUDY

The production of GEMS for this study is continuing. [] completed the collection of collateral information on the selected frames. DNB and AH will begin to formulate a list of questions on each frame which will then be discussed and reviewed by intelligence analysts and [] prior to starting pre-testing.

25X1

MENSURATION STUDY

During the week of 29 November-3 December, DNB, AH and FS visited CM's shop and started the collection of data. [] will supervise the mensuration effort. At present each of the six subjects is measuring the master glass plate; following this, the subjects will begin measuring the five mensuration GEMS presently available. During this time, additional mensuration GEMS will be made. Likewise, the mensuration data will be analysed continuously as it is collected.

25X1

DNB, AH and FS described the study objectives and general procedures at a meeting attended by the subjects, CM, JH and PS.

AH discussed the computer requirements for the study with [] who will provide the necessary computer programming and data processing.

25X1

MISCELLANEOUS

DNB, AH and FS reviewed both the P.I. response study and the mensuration study at a meeting held on 30 November with JH and PS. The new project schedule, a copy of which is attached, was discussed.

[] from DNB's shop, joined the project and participated in the project activities at the Center last week.

Have a Happy Christmas and a Merry New Year.

25X1

Att.

| DEC | JAN | FEB | MAR | APR | MAY | JUNE |

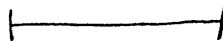
MENSURATION
GEM- MAKING



MENSURATION

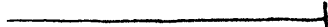


ANALYSIS &
REPORT

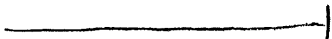


MENSURATION STUDY
PI RESPONSE STUDY

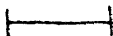
GEM MAKING



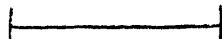
TEST
PREPARATION



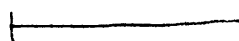
PRE-TESTING



TESTING



ANALYSIS &
REPORT



5 DEC 65.

997114

NEWSLETTER NO. 10

RESEARCH ON PHOTOINTERPRETER PERFORMANCE

2 November 1965

Prepared by

25X1

25X1

To:

NEWSLETTER NO. 10
RESEARCH ON PHOTOINTERPRETER PERFORMANCE

P.I. RESPONSE STUDY

The production of GEMS for this study is progressing well. Likewise, the preparation of collateral information on the selected frames being performed by [] is nearing completion. This information will be used in designing questions to be asked of PI's and to determine the accuracy of their responses. Initial work on preparing questions will begin during late November.

25X1

MENSURATION STUDY

During 26-29 October DNB and FS visited CM's shop for the purpose of performing a trial-run of the mensuration procedure and subsequent computer calculations. A procedure was formulated and debugged and a master glass plate was measured. A sample mensuration-GEM was also measured. The computer group is presently processing the mensuration data; after a review of the computer output from this sample measurement and when more mensuration GEMS have been made, the full mensuration program will start, probably near the end of November.

997114

NEWSLETTER NO. 9

RESEARCH ON PHOTOINTERPRETER PERFORMANCE

20 Sept 65

Prepared

25X1

25X1

TO:

The collection of photography for the present study is completed. Since we have the opportunity to collect a limited quantity of additional photography, BW, CW and AE sites are being covered for possible use in future studies.

On 14 September 1965 [] visited FS to select, from all the collected photography, those frames suitable for the study. As a result, fourteen stereo pairs were selected. The following list is a brief description of each stereo pair:

25X1

1. Minuteman Control Site.
2. Deployed Minuteman Silo Area including van and open personnel access.
3. Deployed Minuteman Silo Area - No vehicles.
4. Deployed Minuteman Silo Area with various vehicles.
- 5 & 6. Minuteman Silo Area under construction but nearly finished. Silo open, vehicles.
7. Titan II Site.
8. Titan I Site (for use in subject training).
9. Site for setting-up mobile tracking equipment. (For use as silo site mislead).
10. Missile display and gantry.
11. 2 gantries and 2 launch pads.
12. Gantry and launch pad (Mercury program?).
13. Gemini launch pad.
14. Titan III launch pad and gantry.

The targets in the photographs are of the type and number initially planned* for use in this study, except that coverage of missile sites under early stages of construction was not obtained. Practical, logistical problems made coverage of such sites impossible within the time period allocated for photography collection. Efforts to obtain such coverage, and its effect on the program schedule were examined and DNB, AH and FS decided it best to not include missile sites under early stages of construction in the study.

The original negatives of the selected frames are being used to make GEMS. One D.P. is being used by DNB and AH, one D.P. is being used by FS; and one D.P. is being used by [] who will collect collateral information about each frame. Such information will include color coverage of the identical area, high-altitude coverage of the areas, charts, maps, annotations, etc.

25X1

* See memo to Col. GTS from FS, DNB & AH, subject: Proposed Continuation of Photointerpreter Response Research, dated 22 March 1965.
Approved For Release 2006/02/07 : CIA-RDP78B04770A001800020036-3

On 13 September 1965 JH and PS visited FS to review project progress and to look at samples of collected photography.

On 14 and 15 September DNB and AH visited CM and [] to discuss the mensuration study, in particular the data reduction and analysis procedures. AH briefed [] on the mensuration study. As a result of this visit and a meeting held on the 15th, decisions were made: (1) to request subjects to make three measurements of each print to be measured, (2) to begin preparation of stereo mensuration GEMS as soon as sufficient experimental data is collected from the mono-mensuration GEMS to properly design the stereo-GEMS and (3) to include in the goal of this experiment the ability to predict mensuration accuracy of real material from both edge-gradient measurements of the real material and from subjective comparison of real material with the mensuration GEMS.

25X1

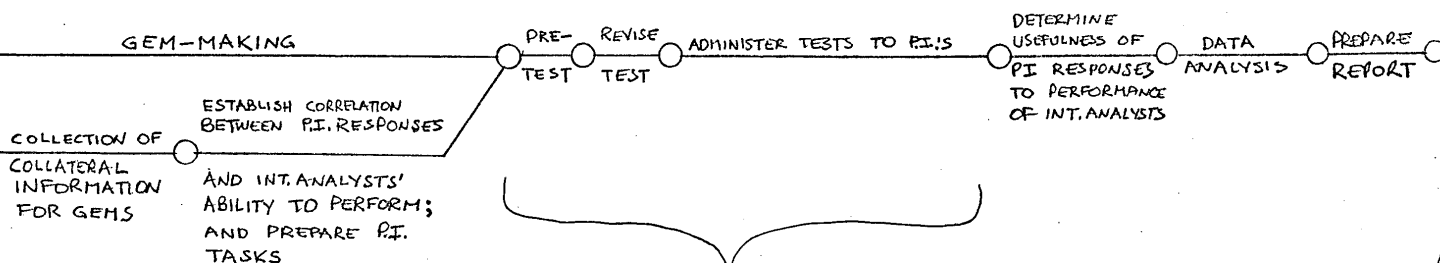
25X1

The mensuration GEM making is progressing well and is on schedule. An enlarged copy of the mensuration GEM pattern layout is attached. Plans are to complete GEMS in the center of the experimental matrix by the end of September and all others by early November.

On 16 and 17 September DNB and AH visited FS to discuss the studies presently in progress and to examine the collected photography and the mensuration GEM pattern configuration. Activities for the following few months were planned and a revised program schedule formulated. A copy of the schedule is attached.

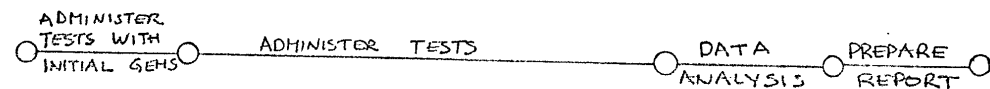
FS:mb
Attachments

OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE



THIS IS THE LATEST THIS OPERATION SHOULD TAKE PLACE
 NOTE THAT THIS OPERATION WAS SUPPOSED TO TAKE PLACE IN DEC. JAN. & FEB. ON FRANK'S CHART
 DATED 16 JUNE 65

MENSURATION STUDY



EXPERIMENTS WITH STORED-MENSURATION GEMS AND EXPERIMENTS ON SUBJECTIVE ASSESSMENT OF MENSURATION ACCURACY OF REAL MATERIAL ARE NOT SHOWN BUT WILL BE SCHEDULED AT A LATER DATE

NEWSLETTER NO 7
 20 SEPT 65

39



997114

NEWSLETTER NO. 8

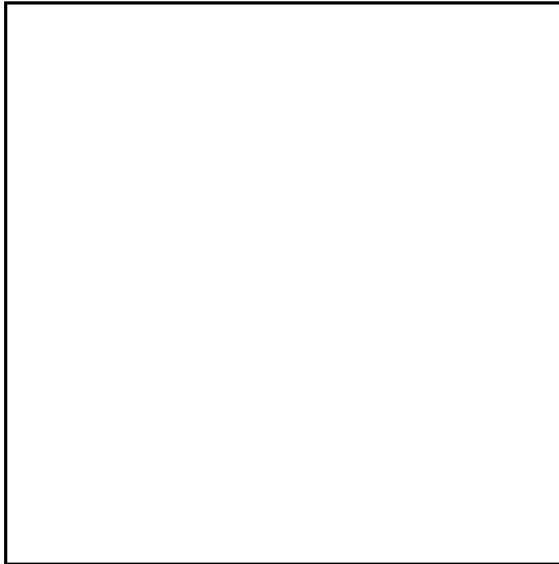
RESEARCH ON PHOTOINTERPRETER PERFORMANCE

24 August 1965

Prepared

25X1

25X1



RESEARCH ON PHOTOINTERPRETER PERFORMANCE - NEWSLETTER NO. 8

Collection of Photography

The collection of photography is proceeding satisfactorily. Several missile sites, Vandenberg and Cape Kennedy were covered. During the remainder of August photography of additional missile sites will be collected. The flight crew was successful in photographing several open silos, sites under construction and also the site in Arkansas which was damaged by an internal explosion and fire.

The photography collection effort should be completed during early September. On 13 September JH and PS will visit FS to review this project.

Mensuration Study

On 10 and 11 August, AH, EK and FS visited CM and [] to make measurements of the sample mensuration GEM and to discuss the mensuration study. As a result of this meeting, several changes were made in the GEM configuration and the layout of the shapes was finalized. Descriptions of the mensuration GEM accompanies copies of this newsletter addressed to JH, CM, BJ, DB and AH. GEM making has started. About 9 GEMS in the center of the resolution/shape-size/contrast matrix will be completed by the end of September and the remaining GEMS will be finished by mid-November.

25X1

At the above mentioned meeting it was decided that the subjects in this experiment will have knowledge of the shapes and approximate location within the GEM format of the shapes before making measurements. This agrees with most operational mensuration tasks. Six experienced subjects will be available for this experiment. The study will be performed using equipment in CM's shop; part of the experiment will be replicated on the chip-comparator in PID.

People

[] are the project monitors replacing [] Both JH and PS were briefed on 11 August on previous studies and the goals and planned procedures of the present study.

[] (from FS's shop) joined the project. He is presently making the mensuration GEMS.

25X1

25X1

25X1

25x1

SHEET NO. 997114 OF 1

JOB NO.

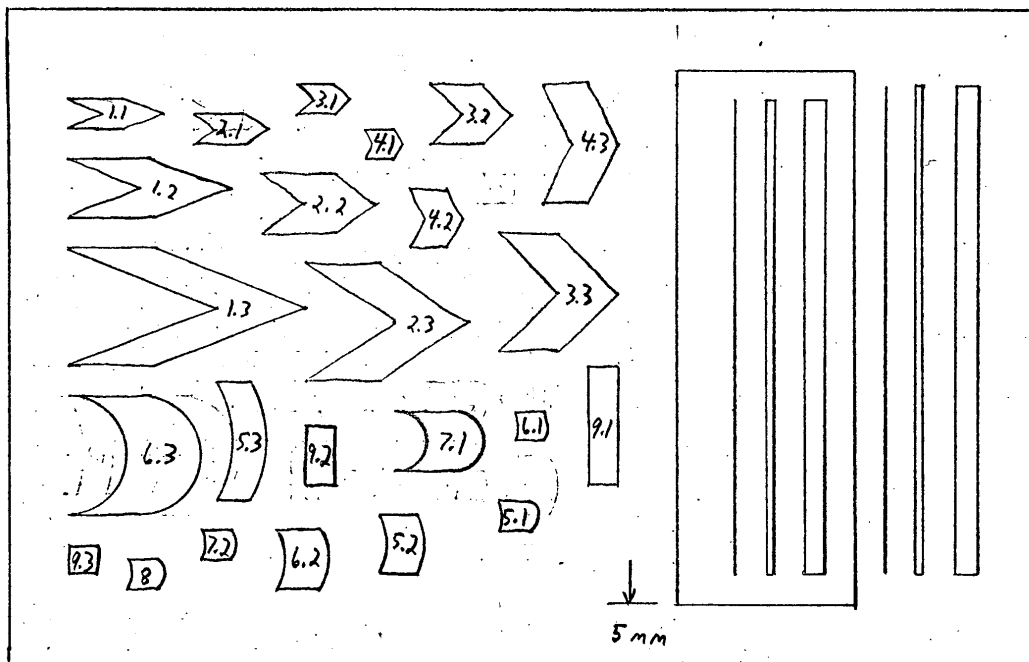
SUBJECT

BY: DATE: CHKD. BY: DATE:

Approved For Release 2006/02/07 : CIA-RDP78B04770A001800020036-3

LAYOUT

PE

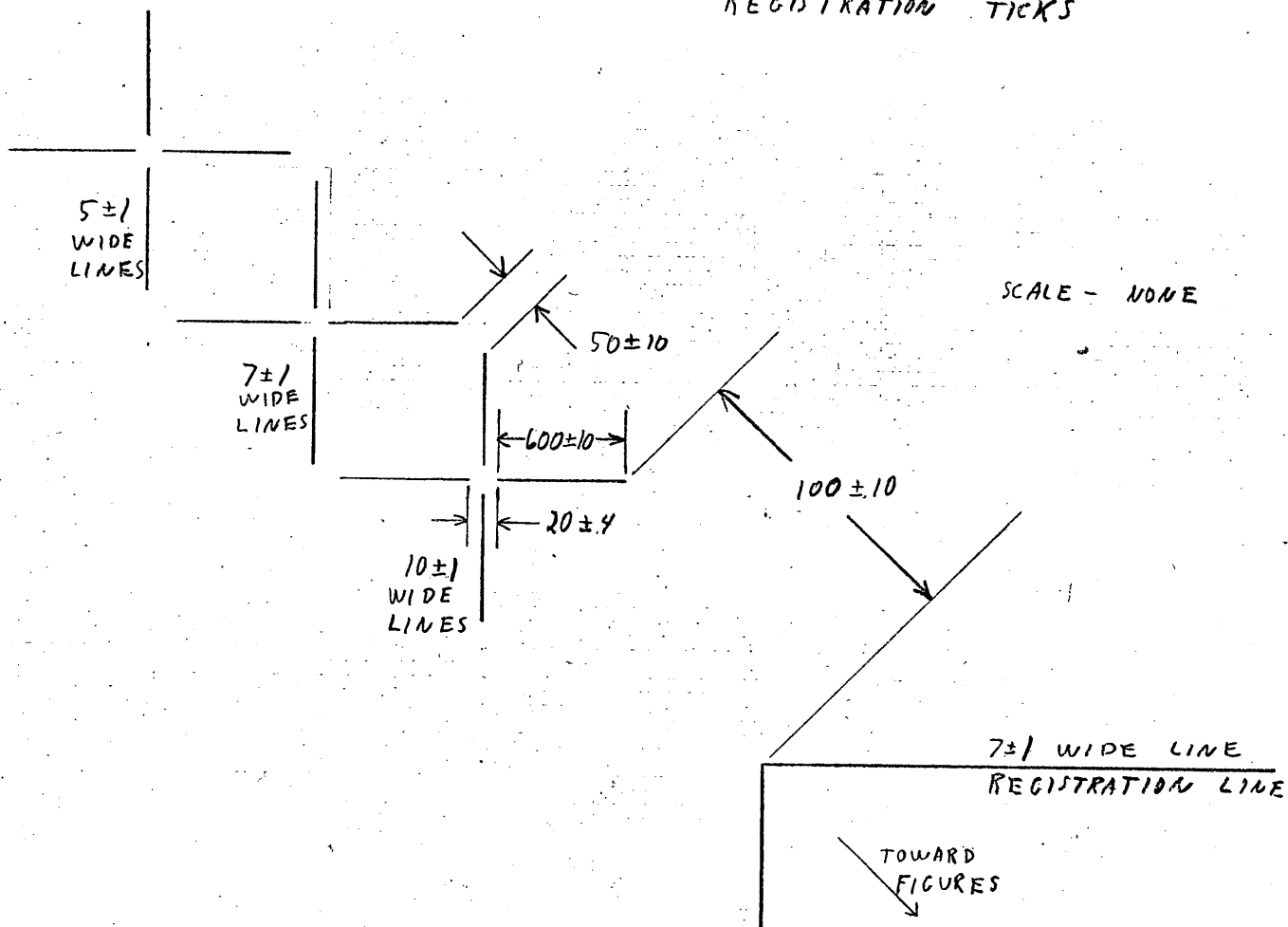


REGISTRATION LINES

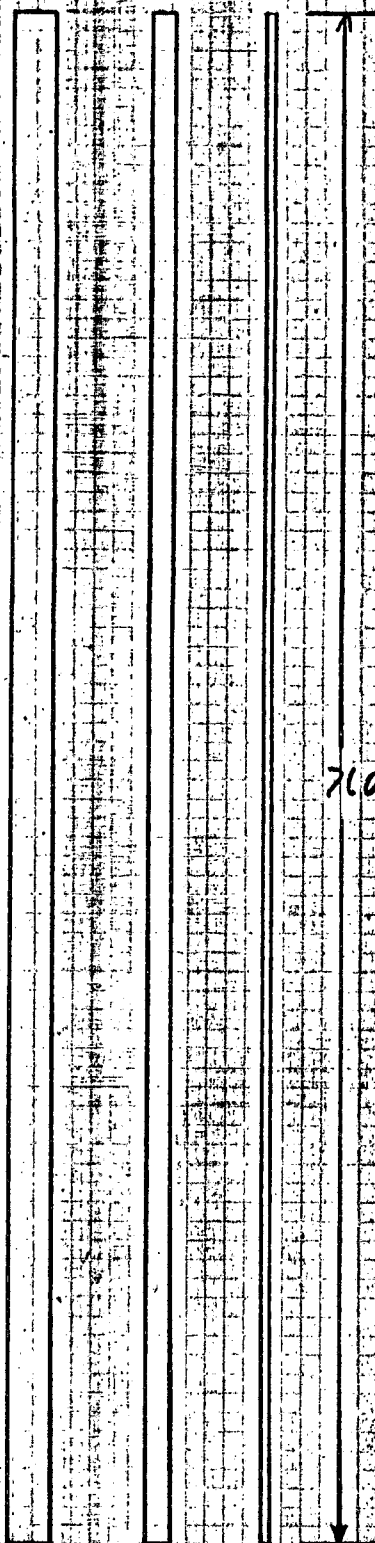
REGISTRATION TICKS

Approved For Release 2006/02/07 : CIA-RDP78B04770A001800020036-3

REGISTRATION TICKS



24 ± 2 12 ± 2 6 ± 1

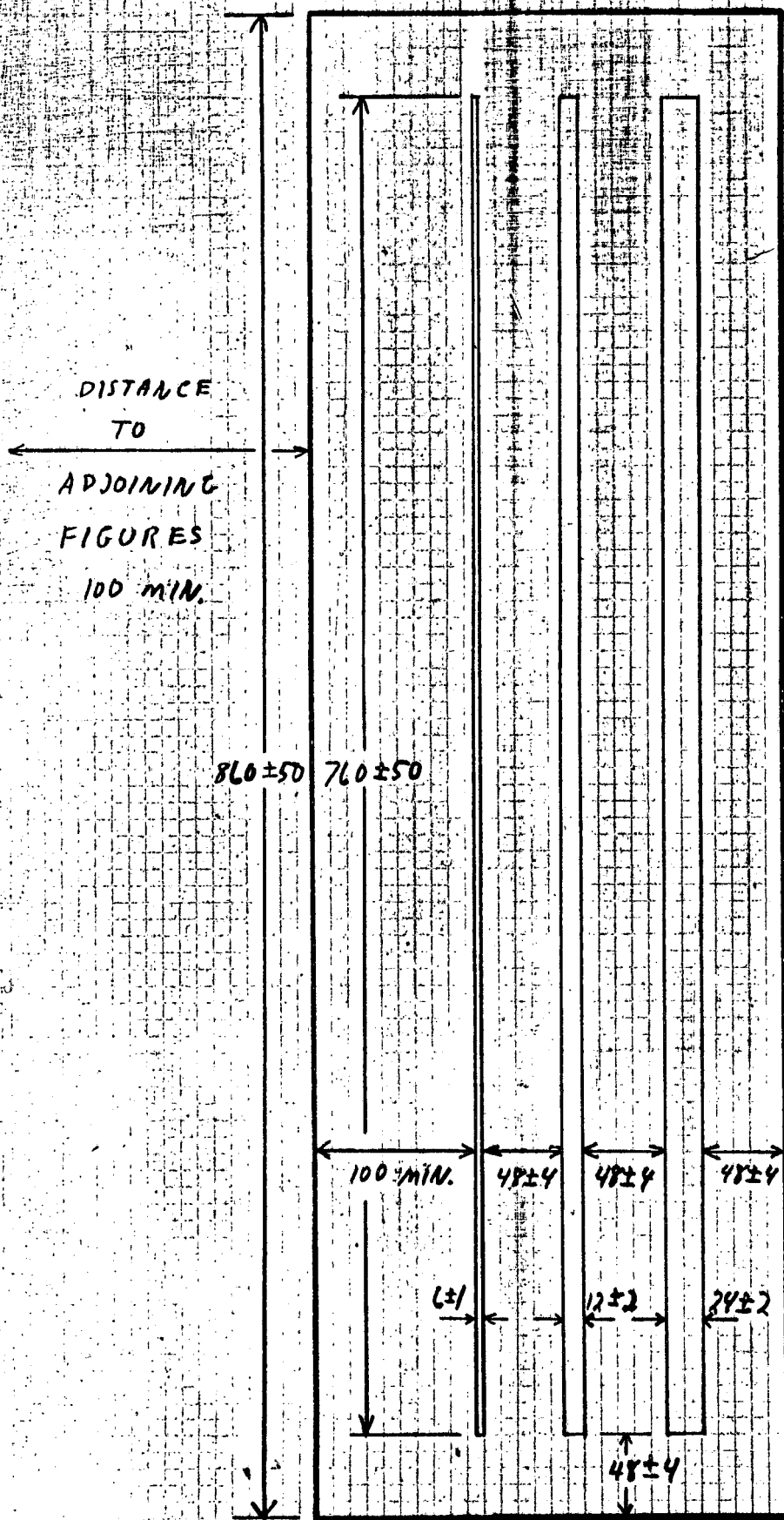


TRANSPARENT RECTANGLES
AGAINST BLACK
BACKGROUND

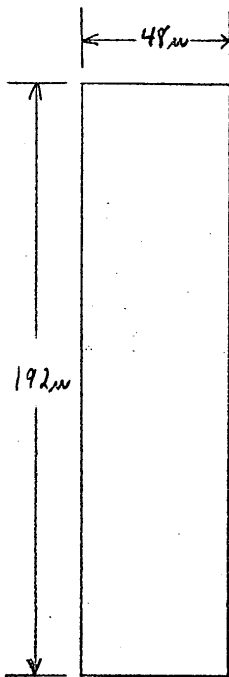
710 ± 50

SCALE 2 IN = 96

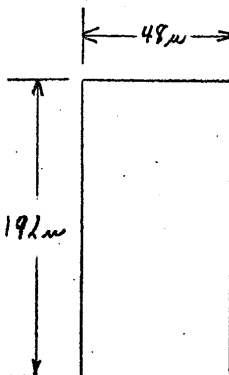
48 ± 4 48 ± 4



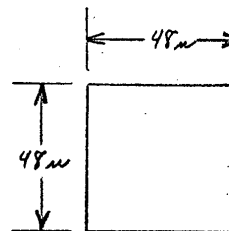
9.1 9.2 9.3



9.1



9.2



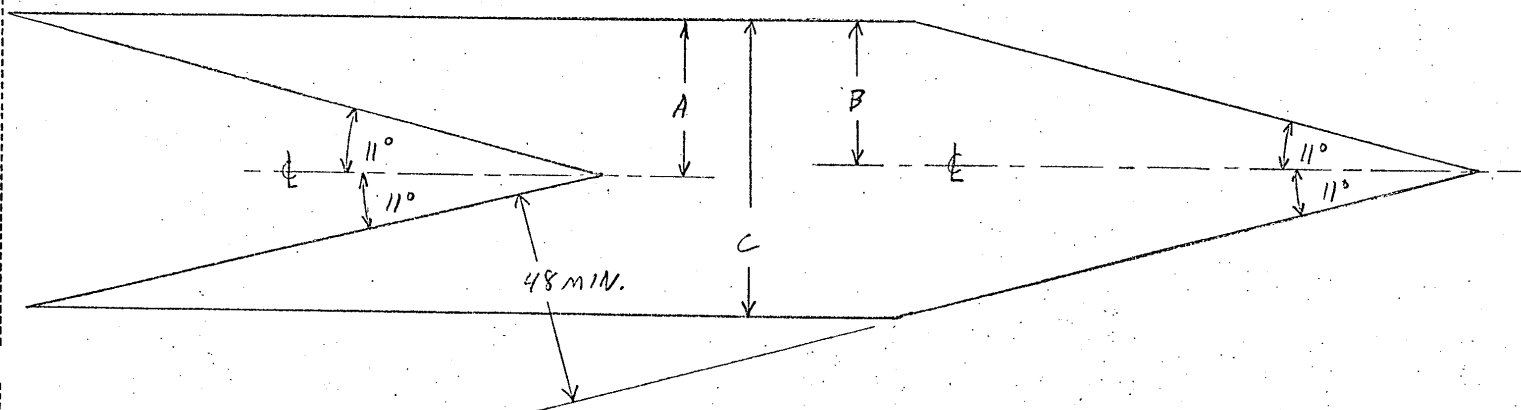
9.3

SCALE 1 in. = 48m

22° \angle POINTED FIGURES

THREE REQUIRED

#1.1 1.2 1.3

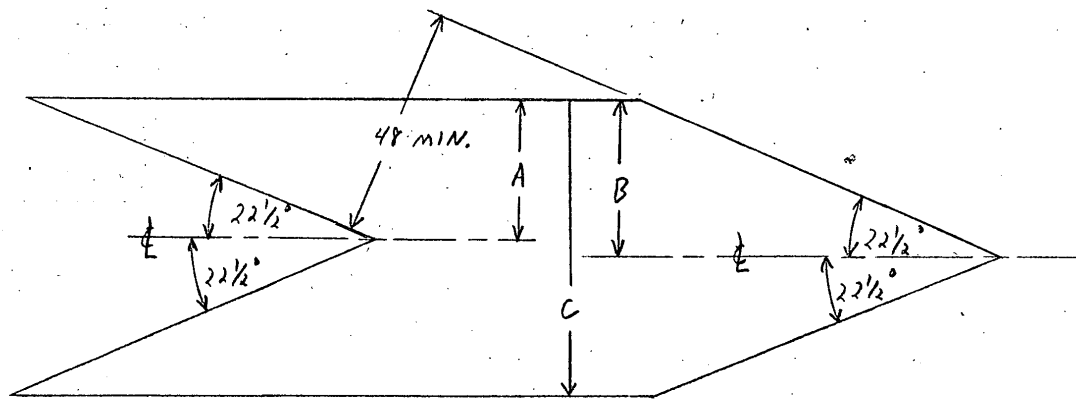


#	A	B	C
1.1	27	21	48 ± 4
1.2	53	43	96 ± 8
1.3	105	87	192 ± 16

45° L POINTED FIGURES

THREE REQUIRED

#2.1 2.2 2.3

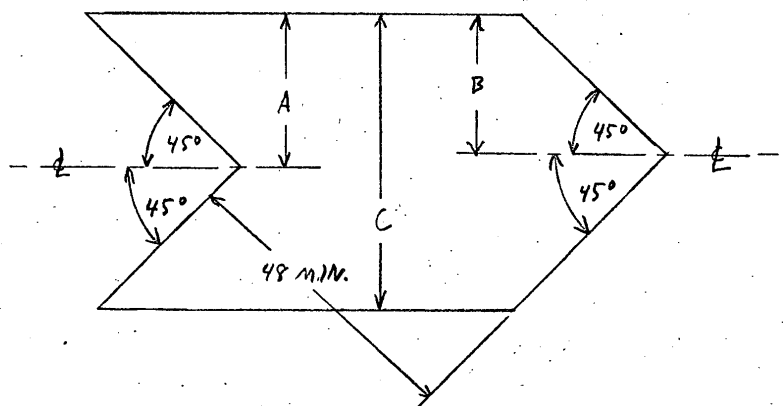


#	A	B	C
2.1	20	28	48 ± 4.
2.2	42	54	96 ± 8
2.3	86	106	192 ± 16

90° POINTED FIGURE

THREE REQUIRED

3.1 3.2 3.3

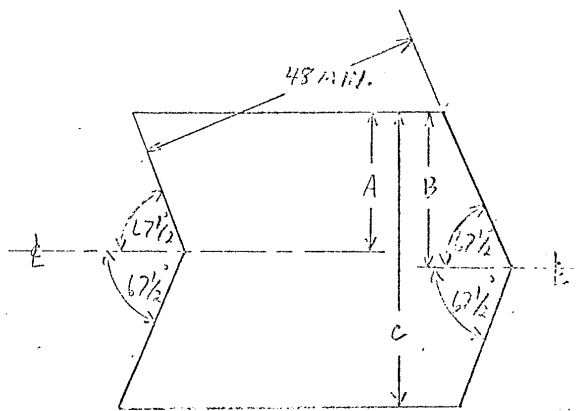


#	A	B	C
3.1	26	22	48 ± 4
3.2	52	44	96 ± 8
3.3	104	88	192 ± 16

135°Z POINTED FIGURE

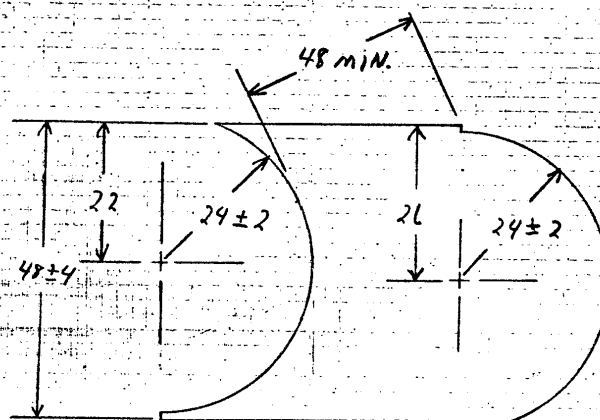
THREE REQUIRED

#4.1 4.2 4.3

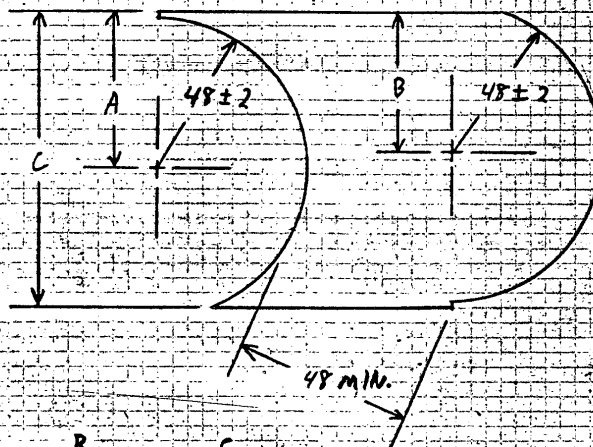


#	A	B	C
2.1	21	27	48 ± 7
4.2	43	53	96 ± 8
4.3	52	105	172 ± 16

24" RADI) FIGURE
8



48" RADII FIGURES
TWO REQUIRED
7.1 7.2

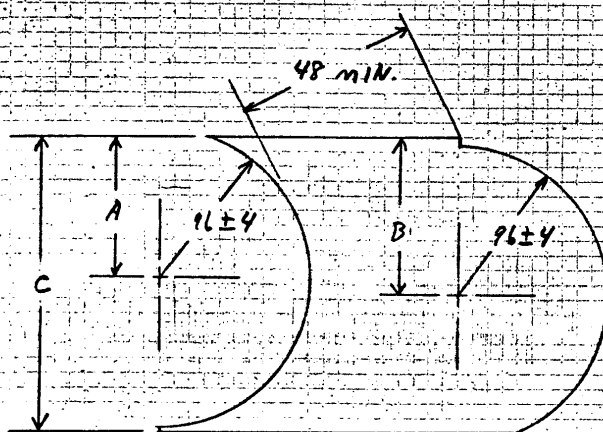


#	A	B	C
7.1	26	22	48±4
7.2	52	44	96±8

96w RADII FIGURES

THREE REQUIRED

#6.1 6.2 6.3

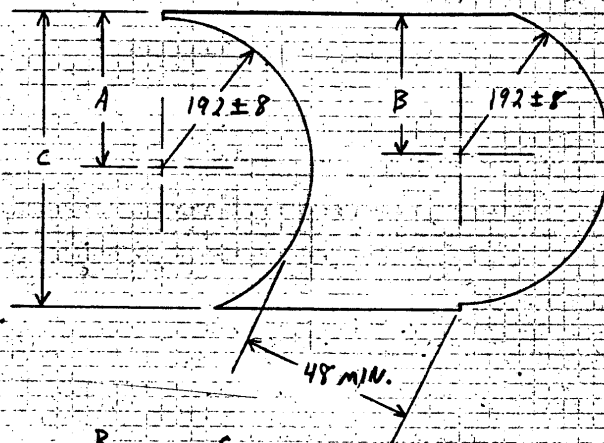


#	A	B	C
6.1	21	27	48 ± 4
6.2	43	53	96 ± 8
6.3	87	105	192 ± 16

192 μ RADII FIGURES

THREE REQUIRED

#5.1 5.2 5.3



#	A	B	C
5.1	28	20	48 \pm 4
5.2	54	42	96 \pm 8
5.3	106	86	192 \pm 16

89-114

NEWSLETTER NO. 7

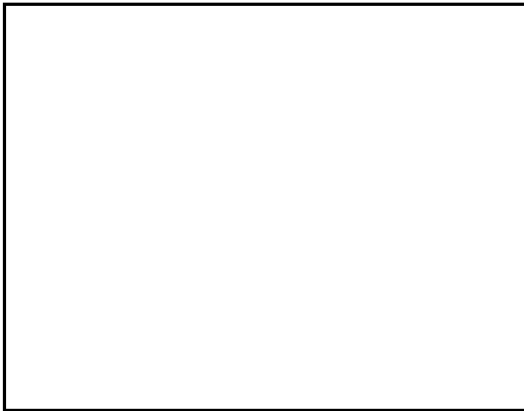
RESEARCH ON PHOTOINTERPRETER PERFORMANCE

PREPARED BY

25X1

8 August, 1965

25X1



COLLECTION OF PHOTOGRAPHY

The photography collection effort has had its share of problems. First, exposure was not correct; then resolution varied too much over the 2-1/4 x 2-1/2 inch frame format; cameras failed and spare parts were difficult to obtain; film was lost in the mail (and found); and ground resolution was not sufficient. The proper corrective action for each problem consumed much time because the period between exposure and image-evaluation was usually 7-10 days. As a result none of the photography collected to date is of satisfactory quality. However, all the problems encountered have been solved, and future photography should be of the quality initially established as necessary for this research.

On 5 August, F.S. visited the group at Rome, New York, which is collecting our photography, to discuss the remainder of the photography effort which will end early in September. During August, Vandenberg, Cape Kennedy, 7 Titan silo areas, 7 Minuteman silo areas, 2-4 Minuteman control centers, and 2 missile sites under construction will be photographed. During the first part of September, any necessary re-takes will be made.

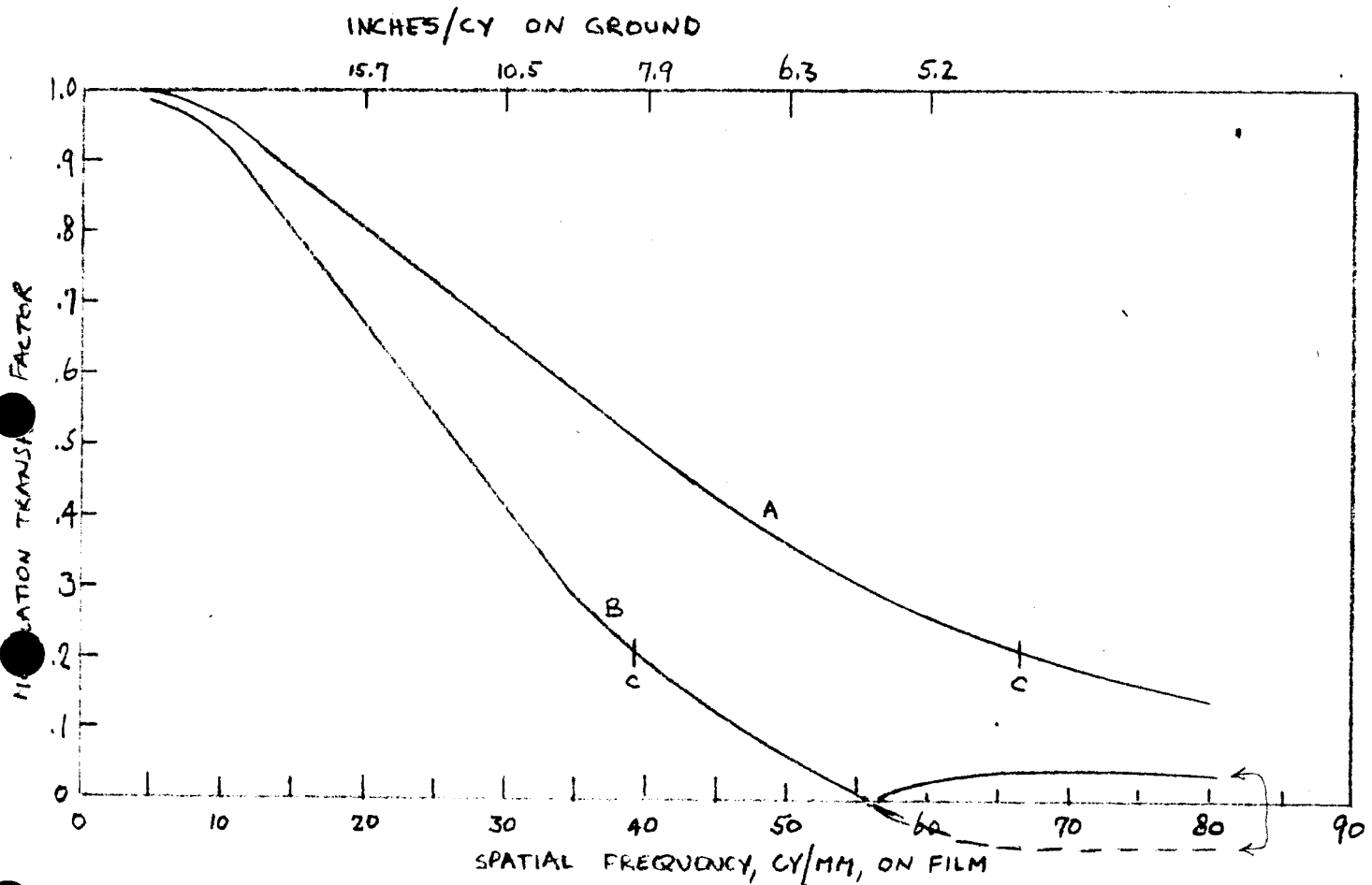
The photography will be made at an altitude of 2000 feet with two Maurer KS-67A cameras cycling at one frame per second using 3-inch F.L. lenses at f/4, a shutter speed of .002 seconds and Kodak type SO-136 film. The stereo convergence angle is 20 degrees. No filters are used. Whenever local weather and logistic conditions allow, that time of day will be selected which yields a 20-30° sun elevation.

The modified RB47 aircraft will fly at 160 knots to minimize image motion. At this velocity, the aircraft nose (which is enlarged on this particular aircraft) is up, making downward visibility poor. This factor coupled with the low altitude (yielding a silo area site image approximately 1-1/2 inches square in the 2-1/2 inch square format) makes accurate fly-over very difficult. Approximately 15% of the passes made thus far are misses. For this reason, each area selected for photography during August will be flown-over twice.

Most of the collected photography will be classified confidential. The camera negatives are processed to unity gamma which is optimum for subsequent gem-making. Three D.P.'s are made of each O.N.; one for Rome, one for DNB & AH and one for F.S. A Photogrammetrist from [redacted] shop will annotate and locate each selected frame. Accompanying the frames we select for Gem-making will be complete photographic, aircraft, time and location data in addition to color coverage and high-altitude coverage of the identical ground areas.

MENSURATION STUDY

25X1 A sample mensuration GEM has been made. On 10 and 11 August, AH and FS will visit [] to observe mensuration of the sample GEM and to make final changes in both mensuration GEM design and analysis of mensuration data will also be discussed. Following this meeting, production of the complete set of mensuration GEMS will begin.



MODULATION TRANSFER FUNCTION OF PHOTOGRAPHY MADE DURING TEST FLIGHTS WITH CONDITIONS IDENTICAL TO THOSE OF THE PHOTOGRAPHY TO BE PERFORMED DURING AUGUST.

A = PARALLEL TO FLIGHT LINE
 B = PERPENDICULAR TO FLIGHT LINE
 C = LOW CONTRAST (2:1) THREE-BAR TARGET RESOLUTION

8 AUG 65

25X1

997114



NEWSLETTER NO. 6

RESEARCH ON PHOTOINTERPRETER PERFORMANCE

21 JULY 1965

Prepared

25X1

25X1



The photography collection is well underway. The field crew has been at sites near Witchita, Kansas, at Colorado Springs, Colorado, and is presently at Tucson, Arizona. They were successful in making arrangements for the opening of Titan silo doors, but are not able to collect photography of open Minuteman silo doors.

The photography performed to date has not been of sufficient ground resolution. Our goal was a ground resolution of [] an evaluation of the images exposed to date show a resolution of approximately [] Several camera operating parameters have been changed in an effort to improve resolution. FS discussed this problem with RS on 14 July and concluded that we should not compromise our resolution objective. 25X1 25X1

25X1 [] made several suggestions for the image content and layout for the mensuration study. These and other items concerning the mensuration study were discussed among CM, [] RS and FS on 14 July. As a result, the image layout will be somewhat different from the initial layout suggested by FS on 21 June 65. 25X1

One or several pilot-run images are being prepared. These will serve to de-bug their preparation techniques and will also be measured so that mensuration, and data reduction and analysis procedures can be optimized prior to the making of all the images for the study. AH and FS are tentatively planning to visit CM's shop during 10-12 August to observe mensuration techniques applied to the pilot image and to discuss with CM and [] refined procedures to be employed in the study. 25X1

mb

897114

DESCRIPTION OF
PROPOSED IMAGES FOR MENSURATION STUDY

1. IMAGE LAYOUT

It is proposed that the image layout be approximately as shown on the attached sketch. The crosses at the four corners are for monitoring film dimensional changes. These will be sharp images, as will lines A_x and A_y and the reference marks which coincide with the x and y coordinates of the points to be measured.

2. IMAGE STRUCTURE CHARACTERISTICS

These images will be made on Kodak Type 3404 (formerly 4404) film and contact printed on Kodak Type 8430 film. The spread function shape of the images will be approximately gaussian.

The layout shown on the attached sheet will be duplicated three times on all pieces of film so that dimension "Z" will be 25, 50 and 100.

Five ground resolutions will be simulated so that the edges of the image shapes will have a density gradient extending over approximately 5, 7.5, 11.2, 16.8 and 24 microns which corresponds to a resolution range of 200 to 40 lines per millimeter.

Each image will be made at five modulation (contrast) levels: .10, .15, .22, .33 and .50.

Thus the matrix of images will be as shown on the attached sheet.

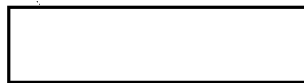
3. PROPOSED PROCEDURE FOR MEASUREMENTS

Hairline is put on sharp line A_{y1} and measurements are made along the A_x direction to points B, C, D....J. and to line A_{y2} .

Page 2

A sample image will be made and measured prior to making all the images for de-bugging both the image-making and mensuration procedures.

Suggestions for changes to the above are invited.

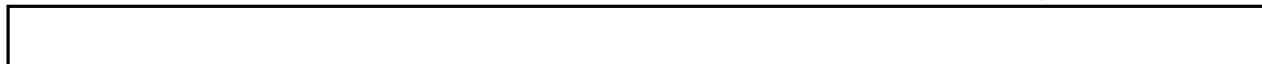


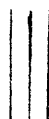
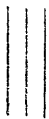
21 June 1965

25X1

mb

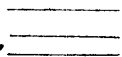
25X1





FILM DIMENSIONAL
STABILITY MARKS

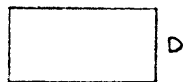
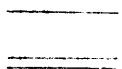
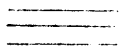
REFERENCE
MARKS



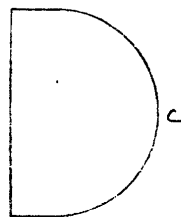
Ay₂

Ay₁

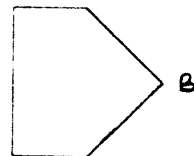
Z



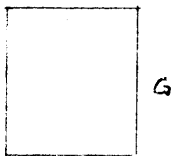
D



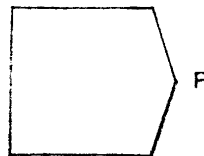
C



B



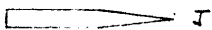
G



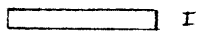
F



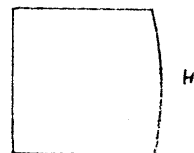
E



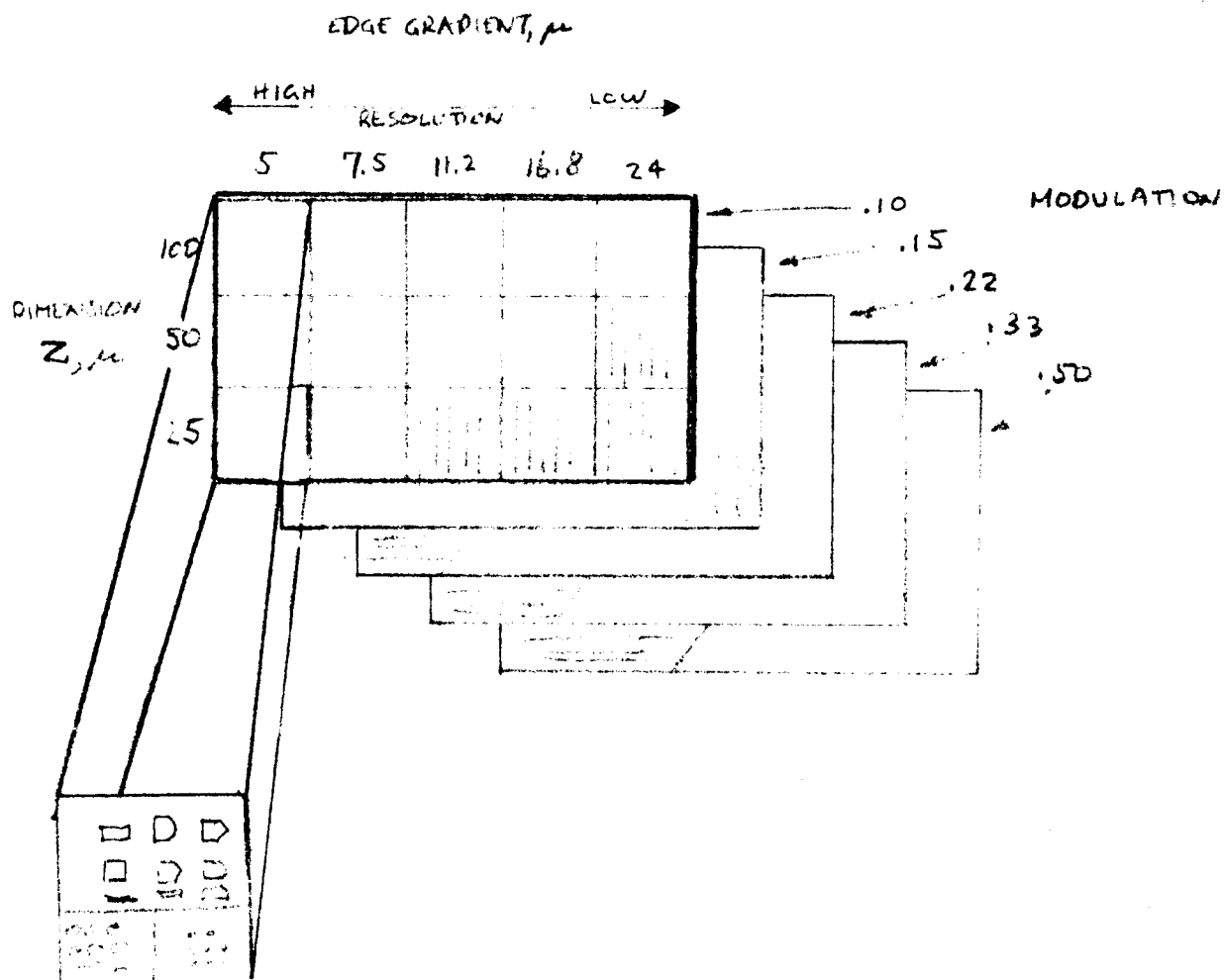
I



J



H



25X1

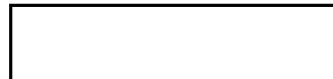
21 JUNE 65

NEWSLETTER NO. 5 a

RESEARCH ON PHOTOINTERPRETER PERFORMANCE

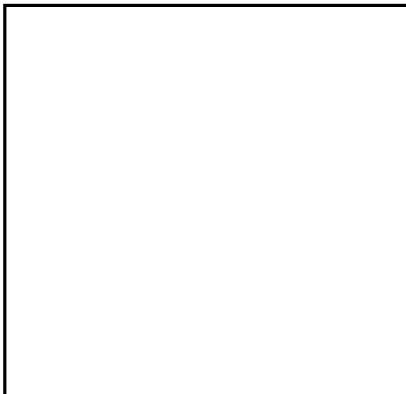
16 JUNE 1965

PREPARED BY:

A rectangular box used to redact the name of the person who prepared the document.

25X1

25X1

A large rectangular box used to redact the main content of the document.

16 June 1965

During March 1965 an experimental study was completed and a report on the work, entitled "The Effects of Stereo Convergence and Obliquity Angles on the Judged Worth of Aerial Photographs" was submitted. A series of briefings on this work were given.

On 22 March 1965 a memo dated 22 March 1965 was submitted to GTS on the proposed continuation of Photointerpreter Response Studies and was accepted. The research consists of two major parts: (1) A PI response study and (2) a mensuration study. The goals of these studies are, respectively:

1. a. To determine, as a function of ground resolution, the effect of PI performance on the usefulness of photography (of missile sites) in the analysis performed by intelligence analysts.
- b. To determine validity of PI judgements of value of photography.

and

2. a. To determine the accuracy of target mensuration as a function of ground resolution.

A revised schedule for this effort is attached.

During April and May 1965 [] has made arrangements for the collection of photography. These arrangements are, briefly, as follows:

Rome ADC has been collecting photography for a variety of projects and plan an intensified collection program this summer. [] at Rome has agreed to collect photography specifically for our project if we would supply him with a camera maintenance expert. As a result, on 15 June a man from FS' shop will begin working at Rome for approximately 10 weeks. During the remainder of June the cameras and aircraft will be checked-out and prepared for photography-collection flights during July and August. The photography-collection effort has been named "Project Brightview". [] is presently working on the selection of areas to be photographed.

During a meeting on 8 June in [] shop the mensuration study was discussed. A general experimental procedure was formulated. FS is preparing a description of the photographs to be used in the initial part of this Study, after which DNB and AH will design an experiment. The preparation of the photographs for this effort will begin on 21 June 1965.

200 Conv.

25X1

25X1

25X1

Gen Shopper working in
Control, 3000, 9000,
spread for

equiv. + PI error
date 4/4

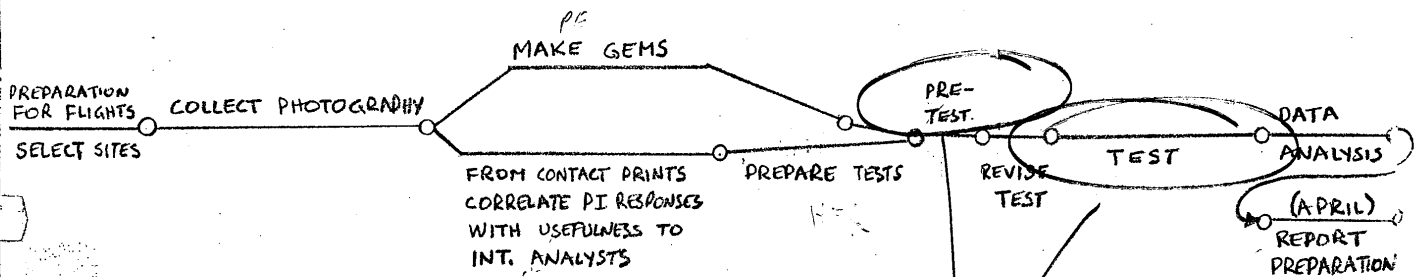
2. of 10
No diff.

with pro photo
25X1 Chip Comp.

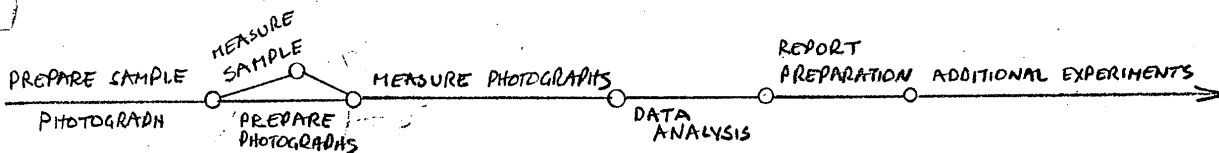
10/10/65

25X1

JUNE | JULY | AUG | SEP | OCT | NOV | DEC 65 | JAN | FEB | MAR



PI RESPONSE STUDY ↑
 MEASUREMENT STUDY ↓



NEWSLETTER NO 5
 16 JUNE 65

25X1